

Notice of Allowability

Application No.

10/785,627

Examiner

Jason M. Nolan, Ph.D.

Applicant(s)

HELDMANN ET AL.

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/14/2006.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>PTOL-413B</u> . |

DETAILED ACTION

Applicant's Response to Non-Final Rejection dated February 14, 2006, has been entered; accordingly, **Claims 1-16** are currently pending in the instant application.

Claim 2 has been amended and **Claims 10-16** are new.

Response to Amendment

The amendments to the claims regarding the rejections set forth in the Office Action dated November 29, 2005 (**Claims 1 and 4-9** were rejected under 35 U.S.C. § 102 and **Claims 2-3** were objected for minor informalities) and the arguments made by Applicant have been fully considered and found persuasive. The rejection of **Claims 1 and 4-9** and the objection to **Claims 2 and 3** have been withdrawn, placing **Claims 1-16** in condition for allowance.

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Elizabeth Richter on March 16, 2006.

The application has been amended as follows:

1. In **Claim 1**, delete the first word "A" for containing an apostrophe, and insert -

- A - -.

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2. In **Claim 1**, after "**R**¹ is selected from the group" and before "hydrogen, . . ." delete "comprising" and insert - - consisting of - -.

3. In **Claim 1**, after "**R**² is selected from the group" and before "linear or branched . . ." delete "comprising" and insert - - consisting of - -.

4. In **Claim 1**, after "**E** is a radical selected from the group" and before "optionally halogen . . ." delete "comprising" and insert - - consisting of - -.

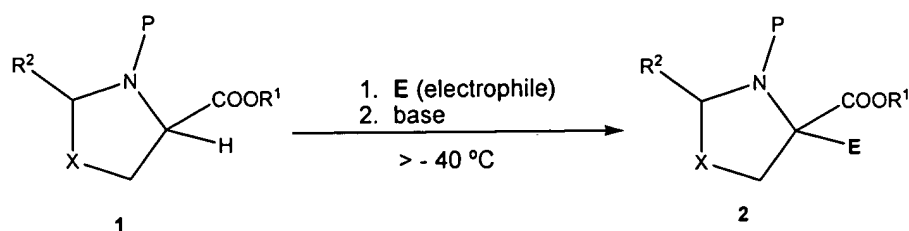
5. In **Claim 2**, after "**R**¹ is selected from the group" and before "hydrogen, . . ." delete "comprising" and insert - - consisting of - -.

6. In **Claim 2**, after "**R**² is selected from the group" and before "linear or branched . . ." delete "comprising" and insert - - consisting of - -.

7. In **Claim 2**, after "**E** is a radical selected from the group" and before "optionally halogen . . ." delete "comprising" and insert - - consisting of - -.

Reasons for Allowance

The present invention relates to a process for preparing compounds of the **formula 2** comprising the addition of a base to a reaction mixture of a compound of the **formula 1** and an electrophile (**E**) at a temperature above - 40 °C, shown below.



The closest prior art to this chemical process is Mulqueen *et al.* (see Office Action dated November 29, 2005), which teaches methods for a similar transformation,

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albeit with patentably distinct modifications. The process taught by Mulqueen *et al.* utilizes colder temperatures (-78 to -90 °C) to effect this reaction; while at the same time the reaction sequence includes a different order of reagent additions. As mentioned above, the process of the instant application adds a base to a *mixture* of the starting material (**formula 1**) and the corresponding electrophile (**E**) at a temperature above - 40 °C; which differs from Mulqueen *et al.* which utilizes the more conventional technique of adding a base to the starting material (**formula 1**) effecting deprotonation, *followed by subsequent addition* of the electrophile (**E**) at a temperature of -78 to -90 °C.

The combination of these two changes to the method as well as the results that are considered surprising to one skilled in the art, including no undesired side reactions such as β -elimination, no decomposition of starting materials, and high yields, affording novelty to this invention and no prior art anticipates or renders this invention obvious.

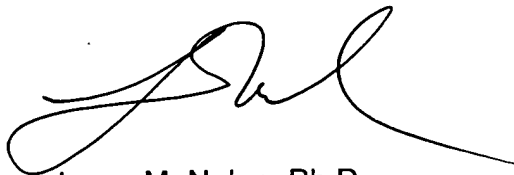
Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **Jason M. Nolan, Ph.D.** whose telephone number is **(571) 272-4356**. The Examiner can normally be reached on Monday - Friday (9:00 - 5:30PM).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

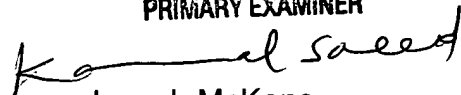
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Date: March 15, 2006